



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/528,384

01/03/2006

Fukashi Urakami

I-215

7046

77319

7590

01/19/2010

Kubotera & Associates, LLC

200 Daingerfield Rd

Suite 202

Alexandria, VA 22314

EXAMINER

STABLEY, MICHAEL R

ART UNIT

PAPER NUMBER

3611

MAIL DATE

DELIVERY MODE

01/19/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,384	Applicant(s) URAKAMI, FUKASHI	
	Examiner Michael R. Stabley	Art Unit 3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 7, and 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 5, 7, and 9 recite the limitation "a sticking force" in line 8. The Examiner notes that there is no reference in the claims to anything related to the suction device. The Examiner also notes that the claims essentially read as: "a moving carrier comprising..." because "that sticks to the surface of an object by use of negative pressure" is functional language.

4. Claims 5-13 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: anything related to the suction device such as the suction hose, suction disk, cylindrical case, etc. The Examiner notes that the invention is a suction adhering device but no such elements are claimed. As claimed the invention is simply a small vehicle with caterpillar belts on each side which already exists. Claims 5 and 7 need to specifically claim structural elements relating to the suction device.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 5, 6, and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Urakami (U.S. Patent 4,926,957).

In re claim 5, Urakami discloses a moving carrier that sticks to a surface of an object by use of negative pressure (column 6, lines 53-55), comprising two sets of moving units, each of the moving units including at least two sets of driving wheels (158 and 164); each of the moving units being arranged on each of its right and left sides relative to its traveling direction (see Figure 2); each of the moving units being connected to a driving source (156); one of the driving wheels (164) being situated in a vicinity of a center of a sticking force acting on the moving carrier; another of the driving wheels (158) being situated away from the center of the sticking force acting on the moving carrier; and wherein the moving carrier can pivot at contact area as a pivot axis, at the contact area one of the driving wheels situated in the vicinity of the center of the sticking force being contacted with the surface, one of the moving units being driven and another moving units being not driven. The Examiner notes that driving wheels 164 are closer to the center of the sticking force than driving wheels 158 and are equally as close to the center of the sticking force as the Applicant's wheels as shown in Figure 1.

In re claim 6, Urakami further discloses comprising a moving process that causes the moving carrier to make transverse movements in its traveling direction; wherein actions of the moving carrier being repeated; each of the actions being comprised of a action that the moving carrier pivots at contact area as the pivot axis; at the contact area, one of the driving wheels situated in the vicinity of the center of the sticking force being contacted with the surface; wherein one of the moving units being driven and another moving unit being not driven.

In re claim 9, Urakami discloses a moving carrier for moving on a surface of an object while sticking thereto, comprising a case (4) having an opening portion facing the surface (48) for applying a sticking force relative to the surface, said opening portion having a substantial center point; a first driving device (left side 164) situated on one side of the case relative to the opening portion for contacting with the surface at a first contact area away from the center point by a first distance; a second driving device (right side 158) situated on an opposite side of the case relative to the opening portion for contacting with the surface at a second contact area away from the center point by a second distance greater than the first distance; a first drive source for driving the first driving device; and a second drive source for driving the second driving device as described above.

In re claim 10, Urakami further discloses comprising a hose coupler (76) connected to the case so that a hose is connected to the hose coupler for applying the sticking force (column 4, lines 39-42).

Art Unit: 3611

In re claim 11, Urakami further discloses comprising a third driving device (left side 158) situated on the one side of the case for contacting with the surface at a third contact area away from the center point by a third distance greater than the first distance; and a fourth driving device (right side 164) situated on the opposite side of the case relative to the opening portion for contacting with the surface at a fourth contact area away from the center point by a fourth distance smaller than the second distance as shown in Figure 2.

In re claim 12, Urakami further discloses wherein said first drive source is arranged to drive the third driving device, and said second drive source is arranged to drive the fourth driving device.

In re claim 13, Urakami further discloses comprising a frame attached to the case for supporting at least one of the first driving device and the second driving device.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urakami.

In re claim 7, Urakami discloses a moving carrier that sticks to a surface of an object by use of negative pressure, comprising two sets of moving units, each of the

Art Unit: 3611

moving units being arranged on each of its right and left sides relative to its traveling direction; each of the moving units being connected to a driving source as discussed above with regards to claim 5, but does not specifically disclose each of the moving units including a caterpillar; one end portion of the caterpillar being situated in a vicinity of a center of a sticking force acting on the moving carrier; another end portion of the caterpillar being situated away from the center of the sticking force acting on the moving carrier; and wherein the moving carrier can pivot at a contact area as a pivot axis, at the contact area the one end portion of the caterpillar situated in the vicinity of the center of the sticking force being contacted with the surface, one of the moving units being driven and another moving units being not driven. It would have been obvious to one having ordinary skill in the art at the time the invention was made to switch drive wheels with an endless track caterpillar since it is known in the art to do so and since the applicant admitted so on page 8 of the specification.

In re claim 8, Urakami further discloses comprising a moving process that causes the moving carrier to make transverse movements in its traveling direction; wherein actions of the moving carrier being repeated; each of the actions being comprised of a action that the moving carrier pivots at contact area as the pivot axis; at the contact area, one end portion of the caterpillar situated in the vicinity of the center of the sticking force being contacted with the surface; wherein one of the moving units being driven and another moving unit being not driven.

Response to Arguments

9. Applicant should submit an argument under the heading "Remarks" pointing out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them. The Applicant has filed no arguments other than a statement that "in view of the amendments, the claims should be allowable." Therefore, no response other than how the prior art reads on the claims has been provided.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael R. Stabley whose telephone number is (571)270-3249. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley D. Morris can be reached on 571-272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael R Stabley/
Examiner, Art Unit 3611

/LESLEY D MORRIS/
Supervisory Patent Examiner, Art Unit 3611